

Remarks/Arguments

The foregoing amendments to the claims are of formal nature, and do not add new matter. Claims 119-131 are pending in this application and are rejected on various grounds. Claims 119-124 have been amended with a functional recitation: "wherein the polypeptide encoded by said nucleic acid induces chondrocyte proliferation". Further, all pending claims have been amended to remove references to "Figures" and to "the extracellular domain lacking its associated signal peptide". Claims 127-128 and 132-134 have been canceled without prejudice or disclaimer. The rejections to the presently pending claims are respectfully traversed.

Priority

Applicants rely on the 'chondrocyte proliferation' assay for patentable utility of this case, first disclosed in International Application PCT/US/00/08439, filed March 30, 2000, priority for which has been claimed in this application. The Examiner acknowledges utility for this molecule based on the chondrocyte proliferation assay in U.S. application No. 09/941,992. For the same reasons, Applicants submit that the subject matter defined in International Application PCT/US/00/08439 (as SEQ ID No: 422 and 421; Figure 304 and 303 respectively) also provide specific and substantial and a well established utility for the claimed invention in the present application. Hence, the present application is at least entitled to an effective filing date of **March 30, 2000**.

Specification

The specification has been amended to delete all "embedded hyperlink and/or other forms of browser-executable code" and to correct minor errors. Their entry is respectfully requested. No new matter has been added due to these amendments.

Information disclosure Statement

The Examiner had objected to the previously submitted IDS because it did not comply with the requirements of 37 C.F.R. § 1.98(a)(2). Applicants hereby submit a new IDS separately enlisting each accession number for the sequence, the reference and the database where the sequence is available, from the previously submitted Blast report of 5/31/2002 which complies

with 37 C.F.R. § 1.98(a)(2). Consideration of this Information Disclosure Statement is respectfully requested.

Claim Rejections – 35 USC § 112, first paragraph

Claims 119-123 and 132-134 are rejected under 35 U.S.C. §112, first paragraph while being enabled for an isolated polypeptide comprising the amino acid sequence of SEQ ID NO: 422, does not reasonably provide enablement for an isolated polypeptide having at least 80%-99% identity to the polypeptide of SEQ ID NO: 422.

Claims 127-128 and 132-134 have been canceled without prejudice or disclaimer, hence this rejection is moot with respect to these claims. Applicants respectfully disagree with and traverse the rejection to the remaining claims.

As discussed under the section on "priority", Applicants rely on the chondrocyte proliferation assay for patentable utility of this case. This is a well-established assay and based on the detailed description of the cloning and expression of variants of PRO1387 in the specification, as well as the knowledge of one skilled in the art, Applicants submit that, at the time the invention was made, one of skill in the art would have known how to prepare nucleic acids with at least 80-99% identity to the nucleic acids encoding the polypeptide of SEQ ID NO: 422 or nucleic acids having at least 80-99% identity to the sequence of SEQ ID NO: 421, since methods for making mutants were routine in the art. The positions at which the mutations occur are irrelevant so long as the mutants obtained test positive in the chondrocyte proliferation assay. The presently pending claims only encompass those nucleic acids that encode polypeptides that test positive in the chondrocyte proliferation assay. Such variants could be identified in assays which were well known in the art at the relevant time frame, without undue experimentation. Thus, the claims currently pending are fully enabled, and Applicants request that the present 35 U.S.C. §112, first paragraph rejections to the pending claims be withdrawn.

Claim Rejections - 35 USC § 112, first paragraph -written description

Claims 119-123 and 132-134 are rejected under 35 U.S.C. 112, first paragraph because allegedly, the subject matter was not described in the specification in such a way as to reasonably

convey to one skilled in the relevant art that the inventors had possession of the claimed invention at the time of filing.

Whether the Applicants were in possession of the invention as of the effective filing date of an application is a factual determination, reached by the consideration of a number of factors, including the level of knowledge and skill in the art, and the teaching provided by the specification. The inventor is not required to describe every single detail of his/her invention. An Applicant's disclosure obligation varies according to the art to which the invention pertains.

As discussed above, the present invention pertains to the field of recombinant DNA/protein technology. It is well established that the level of skill in this field is very high since a representative person of skill is generally a Ph.D. scientist with several years of experience. Accordingly, the teaching imparted in the specification must be evaluated through the eyes of such highly skilled artisans, as of the date the invention was made. In view of the Applicant's possession of the PRO1387 sequence (SEQ ID NO: 422), the nucleic acid sequence of SEQ ID NO: 421, and the requirement in the claims that the encoded polypeptide induce chondrocyte proliferation, one skilled in the art at the effective filing date of this application, would have reasonably concluded that Applicants were in the possession of the invention currently claimed. Indeed, according to well established case law, such as *The Regents of the University of California v. Eli Lilly and Co.*, 119 F.3d 1559, 43 USPQ2d 1398 (Fed. Cir. 1997), the written description requirement for a genus can be met by disclosing a representative number of species within the genus coupled with functional characteristics unifying the genus. The combination of structural and functional features recited in the claims as currently amended, meet this legal standard.

Hence, Applicants request that the present rejection to the present claims be reconsidered and withdrawn.

Claim Rejections - 35 USC § 112, second paragraph

Claims 119-124, 128 and 132 are rejected under 35 U.S.C. §112, second paragraph, as being indefinite for failing to particularly point out the subject matter which the applicant regards as the invention. The Examiner rejects the term "the extracellular domain lacking its associated signal sequence".

Claim 128 and further, references to the term "the extracellular domain lacking its associated signal sequence" have been canceled. Accordingly, this rejection is moot and should be withdrawn.

Claim Rejections – 35 USC § 102

Claims 119-138 are rejected under 35 U.S.C. §102(b) as being anticipated by Ashkenazi *et al.*, dated (published 8 June 2000).

Based on the discussions above, Applicants believe that they are entitled to at least an effective date of **March 30, 2000** for this application, which predates the publication date for Ashkenazi. Accordingly, the above cited reference is not prior art and this rejection should be withdrawn.

Claims 119-125, 127, 129-137 are rejected under 35 U.S.C. §102(b) as being anticipated by Walker *et al.*, dated (published 25 May 2000).

Based on the discussions above, Applicants believe that they are entitled to at least an effective date of **March 30, 2000** for this application, which predates the publication date for Walker. Accordingly, the above cited reference is not prior art and this rejection should be withdrawn.

The present application is believed to be in *prima facie* condition for allowance, and an early action to that effect is respectfully solicited.

Please charge any additional fees, including any fees for additional extension of time, or credit overpayment to Deposit Account No. 08-1641 (Attorney Docket No.: 39780-2730P1C72). Please direct any calls in connection with this application to the undersigned at the number provided below.

Respectfully submitted,



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